

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Amendment of the Commission's Rules to Promote)
Aviation Safety)
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WT Docket No. 19-140

COMMENTS OF ONDAS NETWORKS, INC.

Ondas Networks hereby files the following comments in response to the Federal Communication Commission's ("FCC" or "Commission") Notice of Proposed Rulemaking in the above-referenced proceeding.

Ondas Networks Inc. urges the Commission to employ a single, nationwide channel manager for AeroMACS spectrum. By having a single channel manager, AeroMACS can be more expeditiously deployed and more effectively managed.

I. Introduction

Ondas Networks Inc. (formerly Full Spectrum Inc.) is a wireless networking company that designs and manufactures its multi-patented, Software Defined Radio (SDR) platform for Mission Critical IoT (MC-IoT) applications. Ondas' markets include Aviation and Aeronautics, Electric Utilities, Oil & Gas, Water, Rail Transportation and Government. Customers use our SDR technology to deploy their own private licensed broadband wireless networks. Ondas Networks provides a frequency agnostic radio platform from 70 MHz to 6 GHz and beyond.

Ondas' radios enable wide area intelligent networks for smart airports, smart grids, smart pipes, smart rail, smart fields and any other mission critical network that needs internet protocol

connectivity. Ondas' technology supports secure wireless data communications using industry standards for AAA as well as customer selectable link-layer encryption up to AES 256.

Ondas is headquartered in Sunnyvale, CA and employs approximately 50 people. Ondas Networks has been manufacturing radios using IEEE 802.16e and IEEE 802.16s for several years. As the market for AeroMACS expands, Ondas sees the need for additional manufacturers in the space. Ondas prides itself on its commitment to standard technology for mission critical communications networks.

II. ELIGIBILITY

The Commission's eligibility rules should encourage the robust deployment of AeroMACS services. The Commission typically seeks to remove barriers to access to wireless services and should take a similar approach for AeroMACS service rules. By adopting expanded eligibility rules, the Commission will remove artificial barriers to AeroMACS services which will ensure stakeholders have access to channels in the AeroMACS band.

III. CHANNEL MANAGEMENT

By designating a single, nationwide channel manager, the Commission can ensure consistent, efficient, and fair management of AeroMACS channels. A channel manager will be more efficient, saving eligible users time and expense that would otherwise be spent negotiating different allocation and interference protocols at each airport. Using a single, nationwide channel manager, AeroMACS users will have one point of contact regardless which airport they are operating.

The channel manager will be able to maximize spectrum use allowing AeroMACS to meet the unique needs of each location. Communications needs vary between airports based on factors such as an airport's size, region of the country, which Carriers operate at the airport,

among others. The channel manager would allocate channels between non-federal AeroMACS users to facilitate the most efficient use of spectrum at each airport. The channel manager would help coordinate AeroMACS spectrum access with federal users which will ensure efficient use of the AeroMACS spectrum by using sharing techniques specific to the needs of both federal and non-federal AeroMACS users at each airport.

A channel manager will ensure fair management of AeroMACS channels. Under the rule proposed by the WiMAX Forum, the channel manager will make its services “available on a non-discriminatory basis to all eligible AeroMACS users”¹. The Commission should also designate as channel manager, a non-profit expert in AeroMACS technology and its applications in order to ensure fair management of AeroMACS channels.

IV. COORDINATION WITH OTHER AUTHORIZED USERS

A channel manager will help promote coordination with other authorized users of the band. The NPRM seeks comment on how to promote coordination between AeroMACS users and other authorized users of the band, specifically Globalstar and operators of flight test systems. The channel manager approach will promote such coordination as the channel manager will serve as the single point of contact for non-Federal AeroMACS users in the case coordination issues arise with other authorized band users.

V. LICENSING AND COORDINATION

Flexible licensing and coordinate rules will promote robust deployment of AeroMACS services and applications. The proposed licensing rules would impose unnecessary and burdensome costs on AeroMACS users that will constrain AeroMACS deployments. The proposed requirement for individual licensing of fixed based and mobile AeroMACS units is

¹ WiMAX Forum Petition for Rulemaking to Adopt AeroMACS Service Rules.

unnecessary. Location information from each individual licensing regime will be available with the channel manager who will use this information for coordinating the use of AeroMACS spectrum at each airport. Requiring each user to also make this location information available through the FCC's Universal Licensing System (ULS) is duplicative and burdensome.

The NPRM suggests this information must be readily available to the Commission. It will be readily available through the channel manager. Rather than requiring individual licenses, AeroMACS could be licensed by rule making it more administratively efficient and encourage robust deployment of AeroMACS services and applications.

The proposed pre-coordination with FAA Regional Offices would also impose unnecessary delays and costs on AeroMACS users. Coordination with federal AeroMACS would be performed by the channel manager. The Commission should not require pre-coordination on individual licenses in order to prevent imposing coordination requirements that duplicate coordination which will have already been performed by the channel manager.

VI. TECHNICAL RULES

The international nature of AeroMACS services requires adoption of rules that are similar to standards approved by international technical standards bodies. The Commission should adopt the proposed technical rules based on requirements currently incorporated in the International Civil Aviation Organization Standards and Recommended Practices and in the RTCA Minimum Operational Performance Standards.

VII. CONCLUSION

Ondas Networks Inc. urges the Commission to employ a single, nationwide channel manager for AeroMACS spectrum. By having a single channel manager, AeroMACS can be more expeditiously deployed and more effectively managed.

Respectfully submitted,

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